

Thinking about US Immigration in a Global Economic Context

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Overview

- Immigration patterns and a high level look at why they may change
- In depth look at a series of economic forces that may alter future immigration outcomes
 - Retirement financing and aging societies
 - Larger macroeconomic issues associated with aging populations
 - Growing demand for the pool of migrants
 - Diminishing supply of potential migrants
 - Capital flows and potential migration patterns

The world is getting older and no one knows exactly what life will be like in tomorrow's older societies, but we do know that age dependency ratios – the ratio of retirees to workers – will be much higher than we see today. The implications of this trend are plain. The combined effects of fewer workers, more retirees and longer retirement periods threaten not only the sustainability of pension systems but also the broader economic prospects of many developed countries. The *Economic Implications of Aging Societies* describes current trends in birth rates, longevity and labor force participation and productivity, the cross-border flow of capital, the globalization of labor markets, the financial viability of social insurance programs, and the ways economic output is shared between working-age and retiree populations. There is no single magic-bullet solution to the demographic challenges ahead. Our most effective solution will likely be a multifaceted one: more workers, longer careers, higher productivity, and more global exchange and cooperation. There is no denying that challenges lie ahead, but delaying retirement will likely necessitate even stronger medicine and possibly a more distant prognosis.

Steven A. Nyce is a Senior Retirement Research Assistant with the Research and Information Center of Watson Wyatt Worldwide in Washington, D.C. Dr. Nyce joined Watson Wyatt in 2000 upon completion of his PhD in economics from the University of Notre Dame. He has written numerous articles and spoken regularly at public and private forums on the impacts of demographic aging on the developed economies. His research also includes the study of behavioral aspects of private pensions and public and private retirement policy.

Sylvester J. Schieber is Vice President, Research and Information Center, Watson Wyatt Worldwide in Washington, D.C. Prior to joining Watson Wyatt in 1983, he served as the first research director at the Employee Benefit Research Institute in Washington, D.C. Before that he served as the Deputy Director of the Office of Policy Analysis, U.S. Social Security Administration. Also at Social Security he served as the Deputy Research Director of the "Universal Social Security Study," a congressionally mandated study that evaluated whether remaining federal and state and local government workers outside the system should be included. Dr. Schieber has authored or edited six books by himself or with colleagues. These include the seventh and eighth editions of the *Fundamentals of Private Pensions*. His 1999 book with John B. Shoven, *The Real Deal: The History and Future of Social Security*, received special recognition in the 2000 Paul A. Samuelson Prize competition for economic writing. Dr. Schieber served as a senior advisor to the organizers of the Global Aging Initiative at the Center for Strategic and International Studies. He was appointed to the 1994-1998 Advisory Council on Social Security convened by the Bill Clinton Administration. He was appointed to a six-year term on the U.S. Social Security Advisory Board in 1997 and reappointed for another term in 2003.

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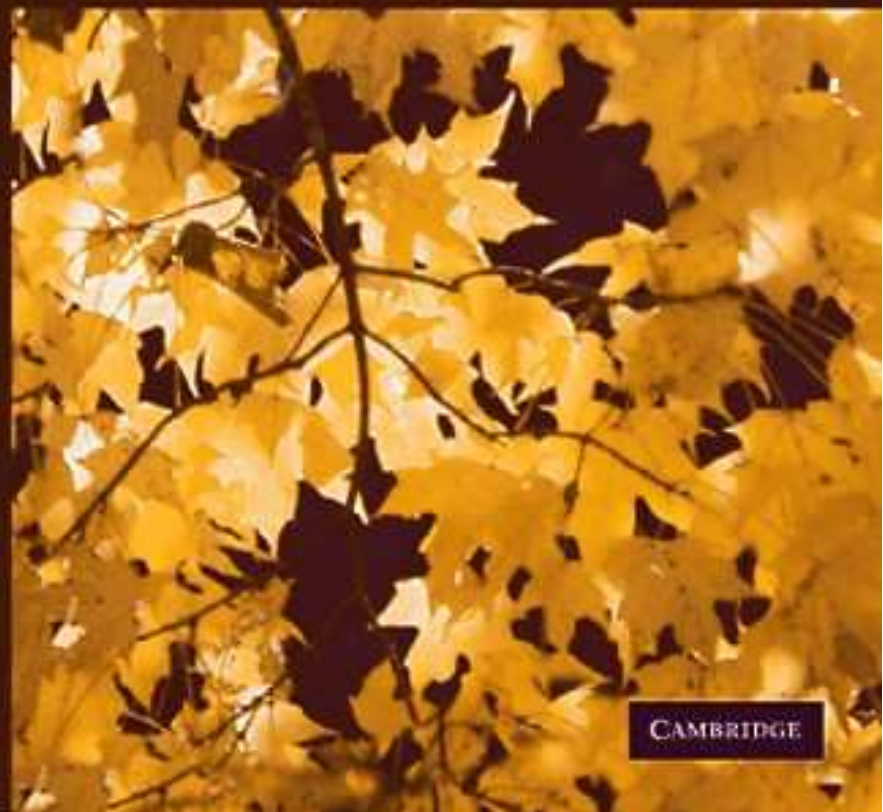
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Nyce & Schieber
The Economic Implications of Aging Societies
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The Economic Implications of Aging Societies

The Costs of Living Happily Ever After

Steven A. Nyce • Sylvester J. Schieber



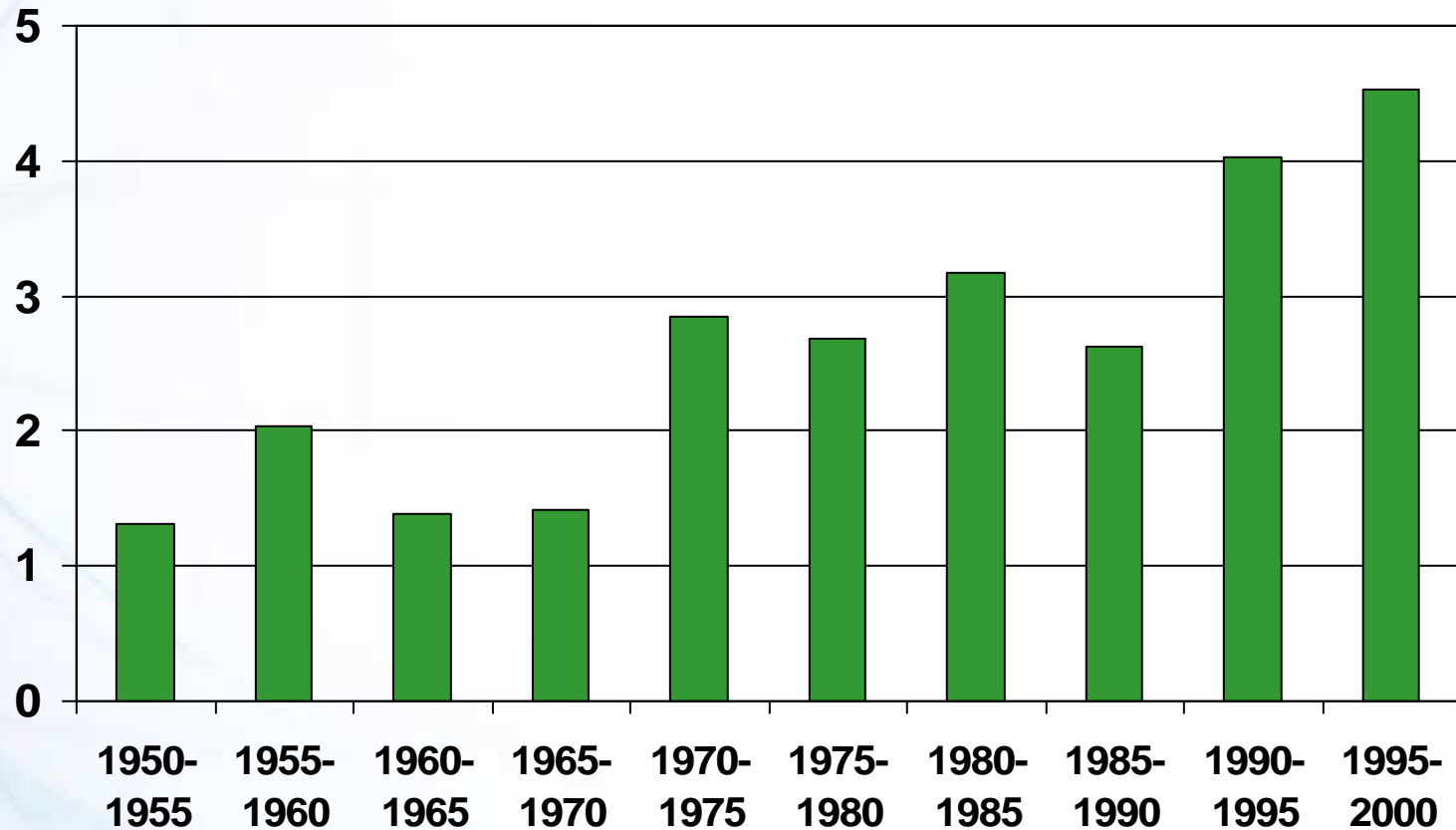
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Migration Patterns



United States Immigration Patterns for the Respective Specified Periods

Net number of immigrants per 1,000 population

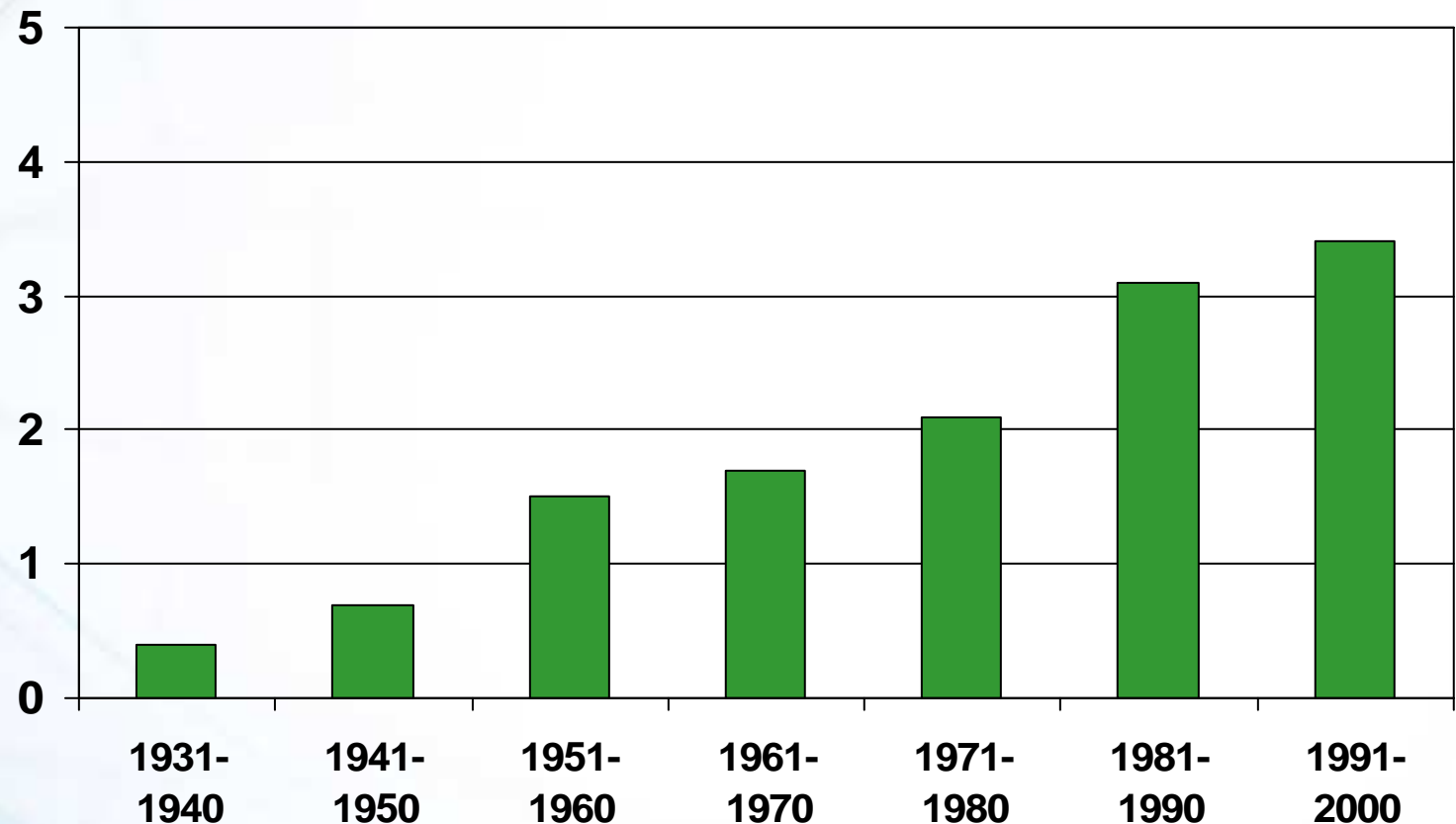


Source: UN World Population Prospects, 2000 Revision.



United States Immigration Patterns at Annual Rates per 1,000 in the Population

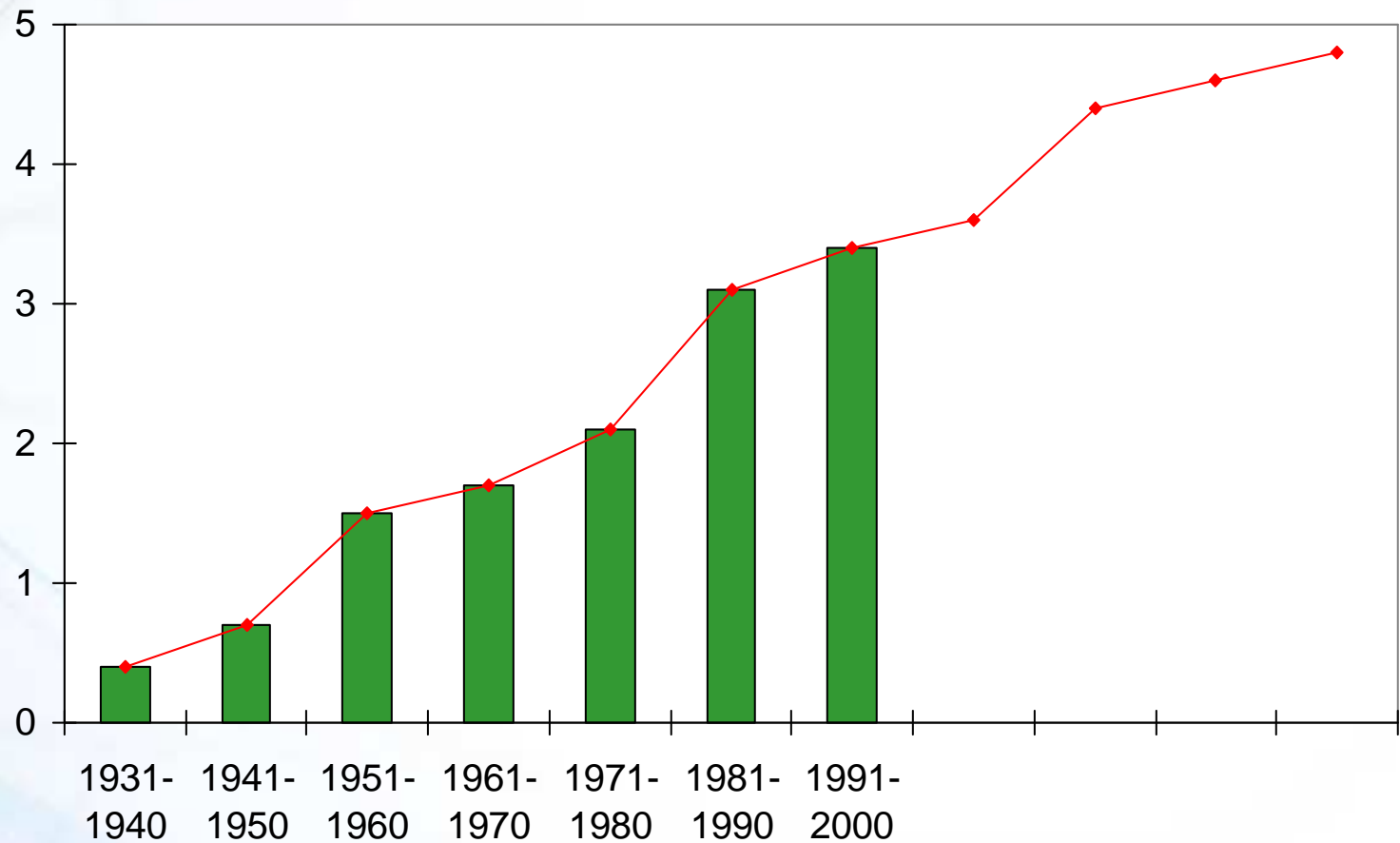
Net number of immigrants per 1,000 population



Source: U.S. Census Bureau. The annual rate of immigration per thousand people in the population were computed by dividing the sum of annual immigration totals by the sum of the annual US population totals for each respective period.

United States Immigration Patterns at Annual Rates per 1,000 in the Population

Net number of immigrants per 1,000 population

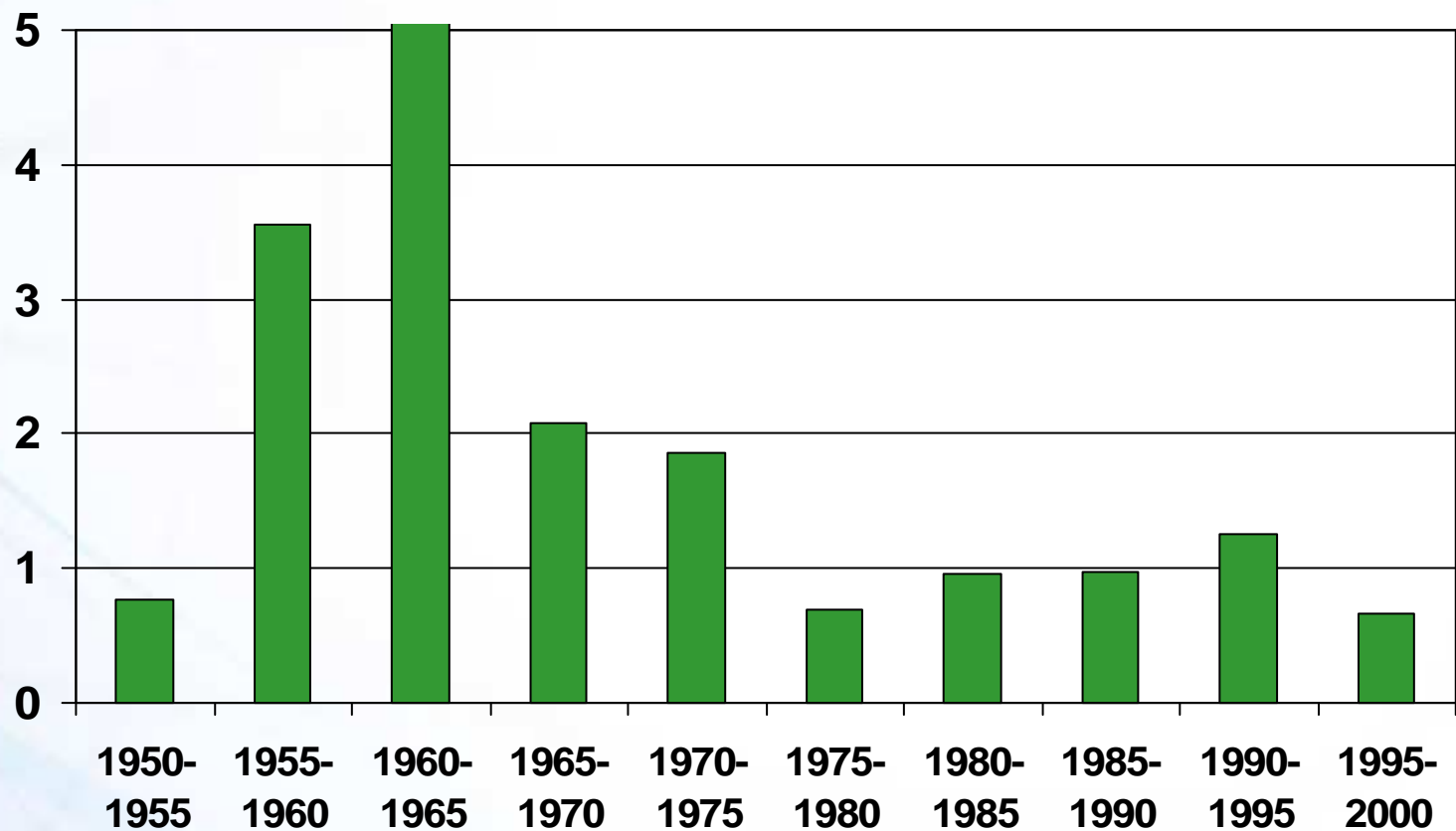


Why Future Patterns Might Vary from Historical Ones

- Net migration is zero when it is considered in a world context
- US melting pot environment and relative wealth opportunity has been particularly attractive but will they persist?
- Attitudes toward immigration may change elsewhere
 - Places providing opportunities may increase
 - Reasons to move may decrease

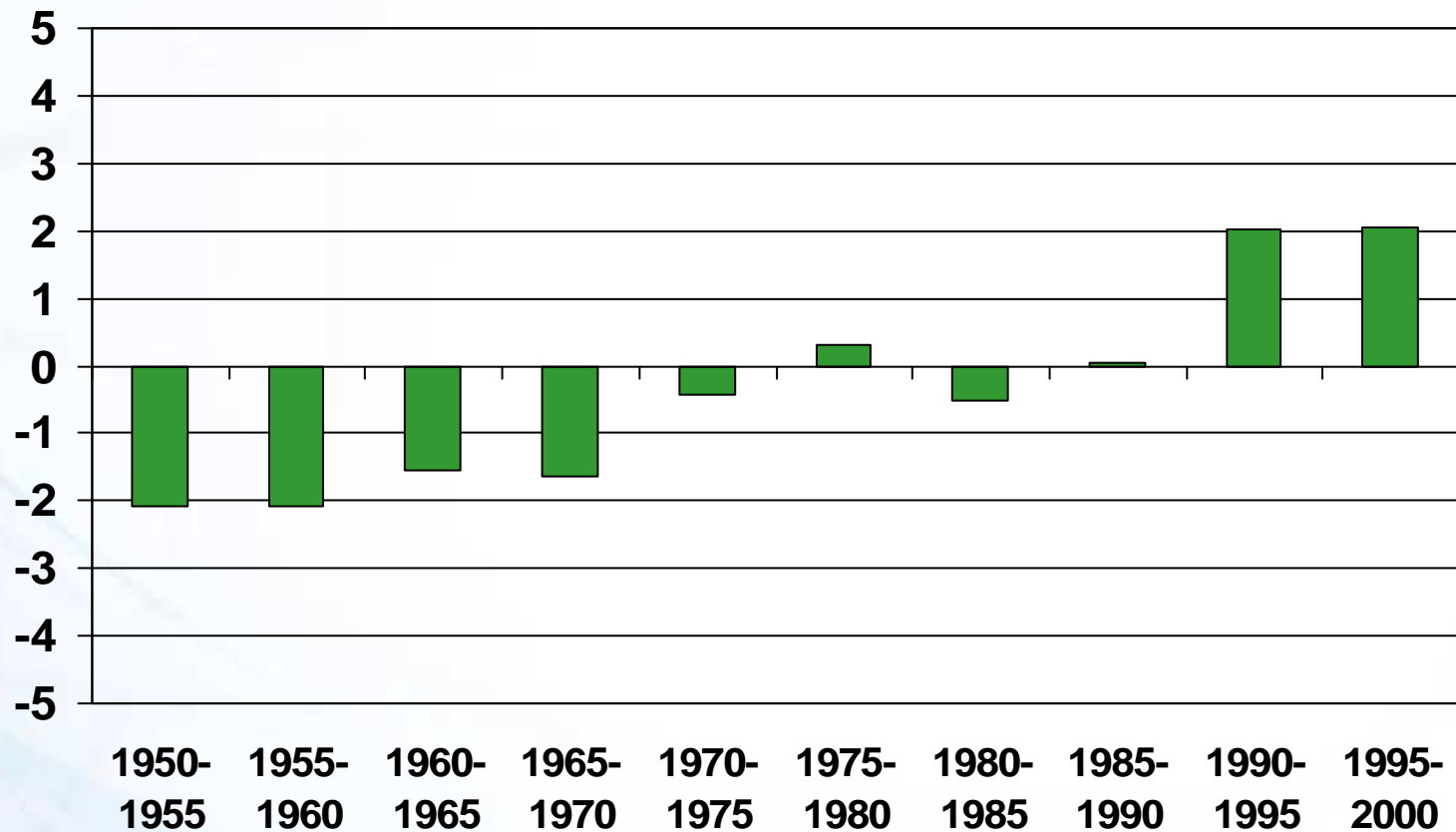
French Immigration Patterns

Net number of immigrants per 1,000 population



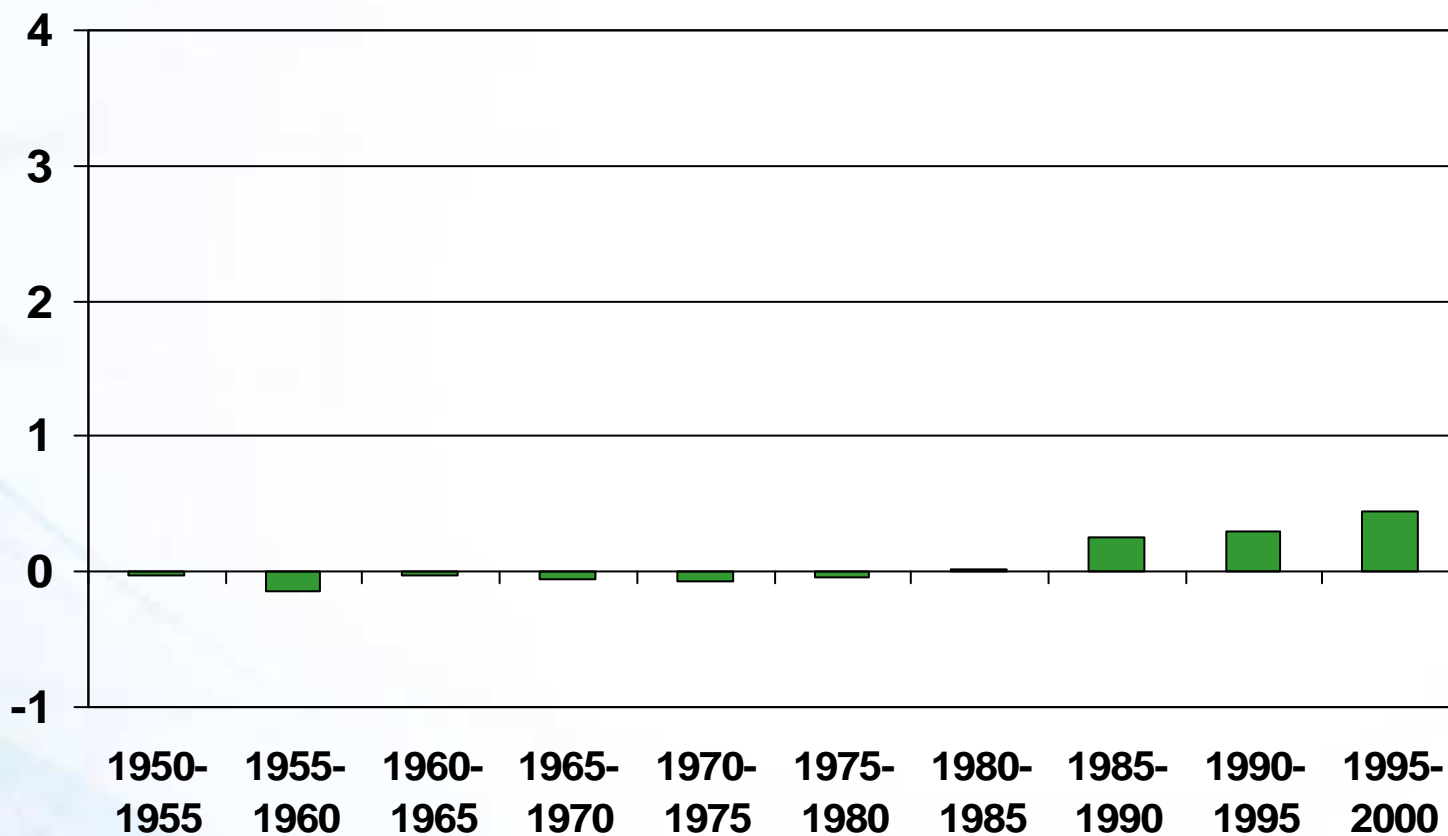
Italian Immigration Patterns

Net number of immigrants per 1,000 population



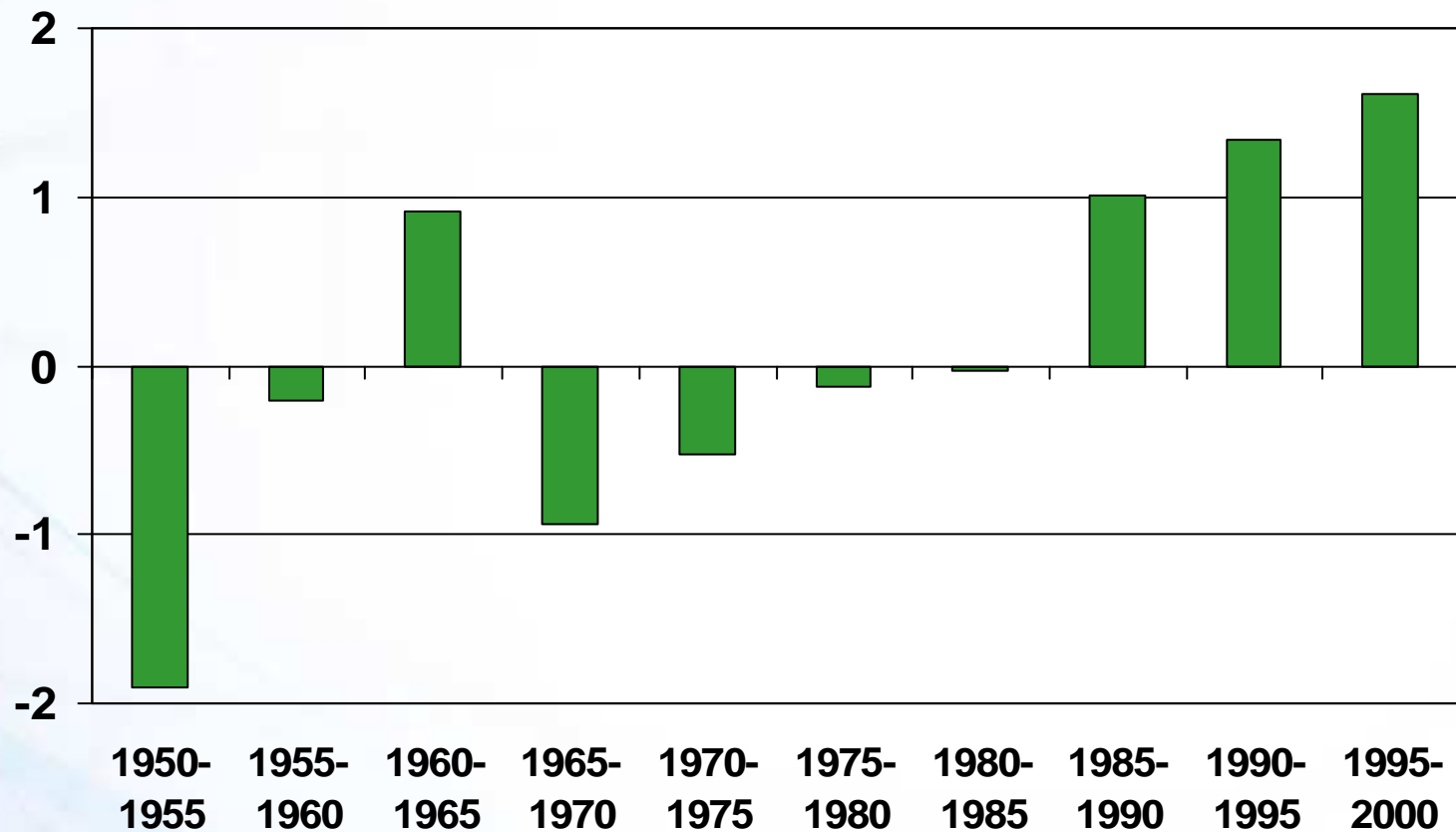
Japanese Immigration Patterns

Net number of immigrants per 1,000 population



United Kingdom Immigration Patterns

Net number of immigrants per 1,000 population



Changing Economic Considerations



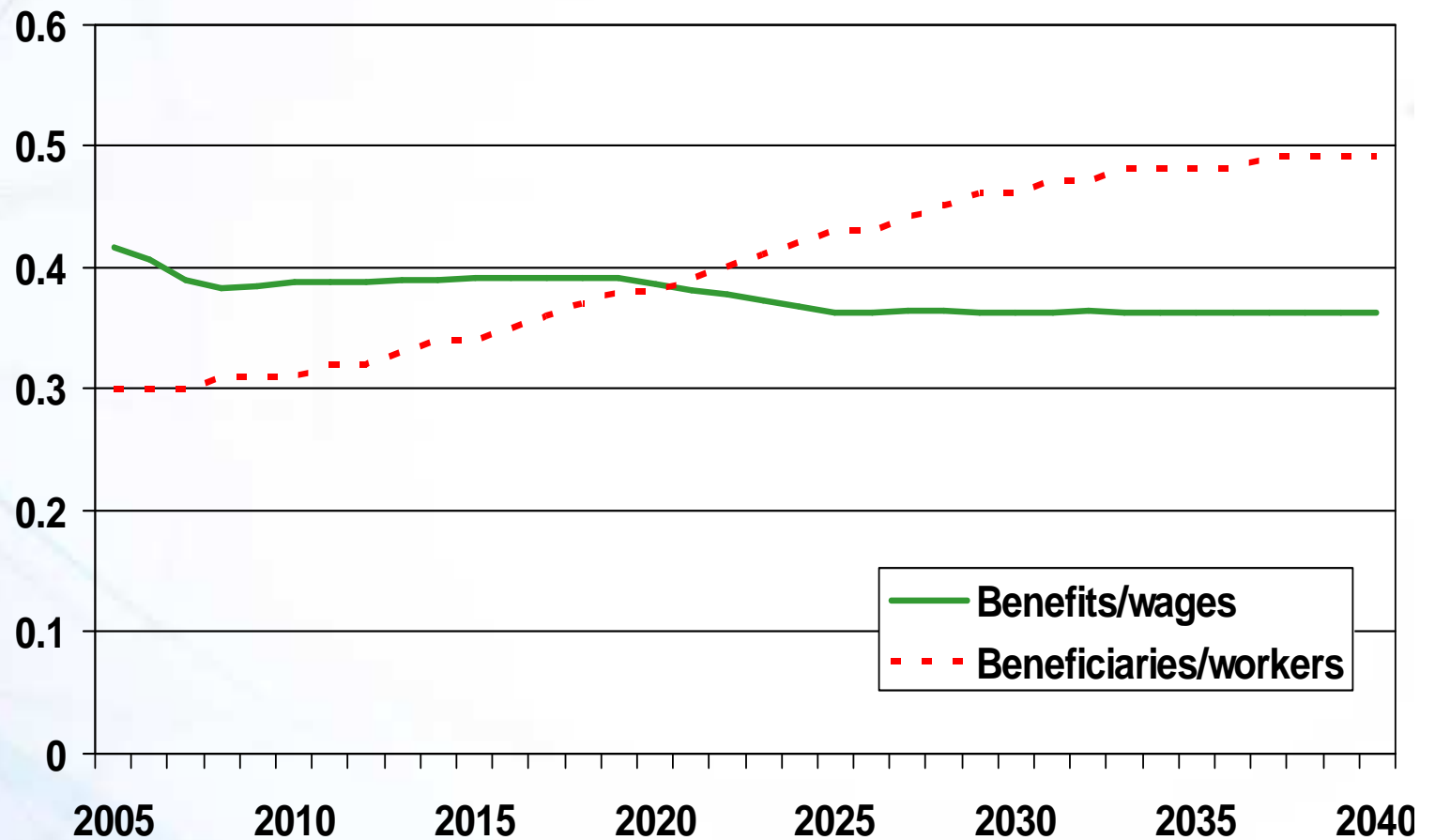
Economic Issue 1: Pay-As-You-Go Funding of Retirement

$$\frac{\text{Ratio of Average Benefits to Average Taxable Wages} \times \text{Dependency Ratio}}{\text{Tax Rate}}$$

Dependency Ratio equals the number of beneficiaries divided by the number of workers.

Example: If benefits represent 40% of taxable wages, and there are 3 beneficiaries for every 10 workers, the tax rate is 40% times 30% or 12%.

Projected Benefit and Dependency Ratios for Social Security

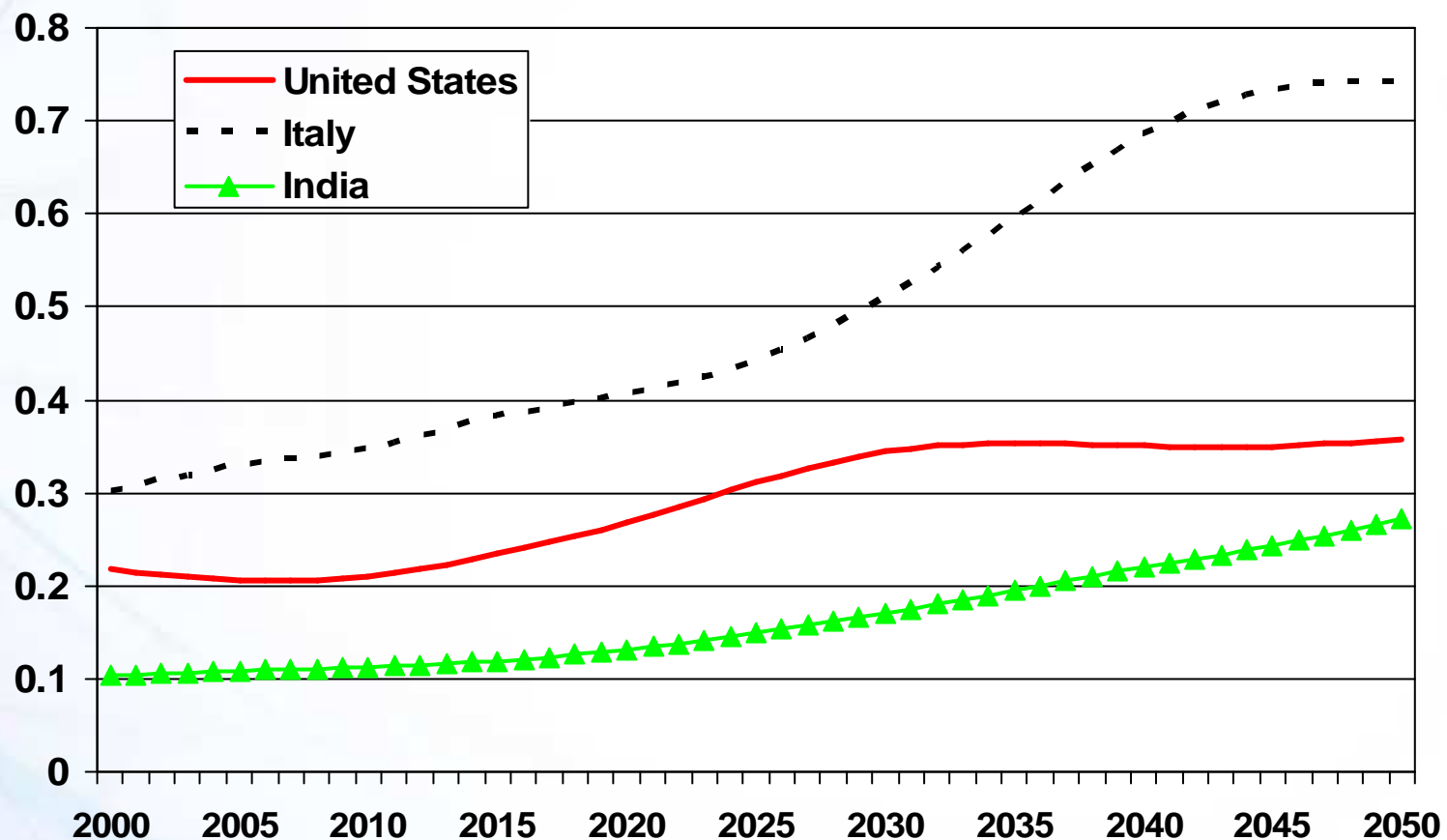


Source: 2005 Trustees Report.



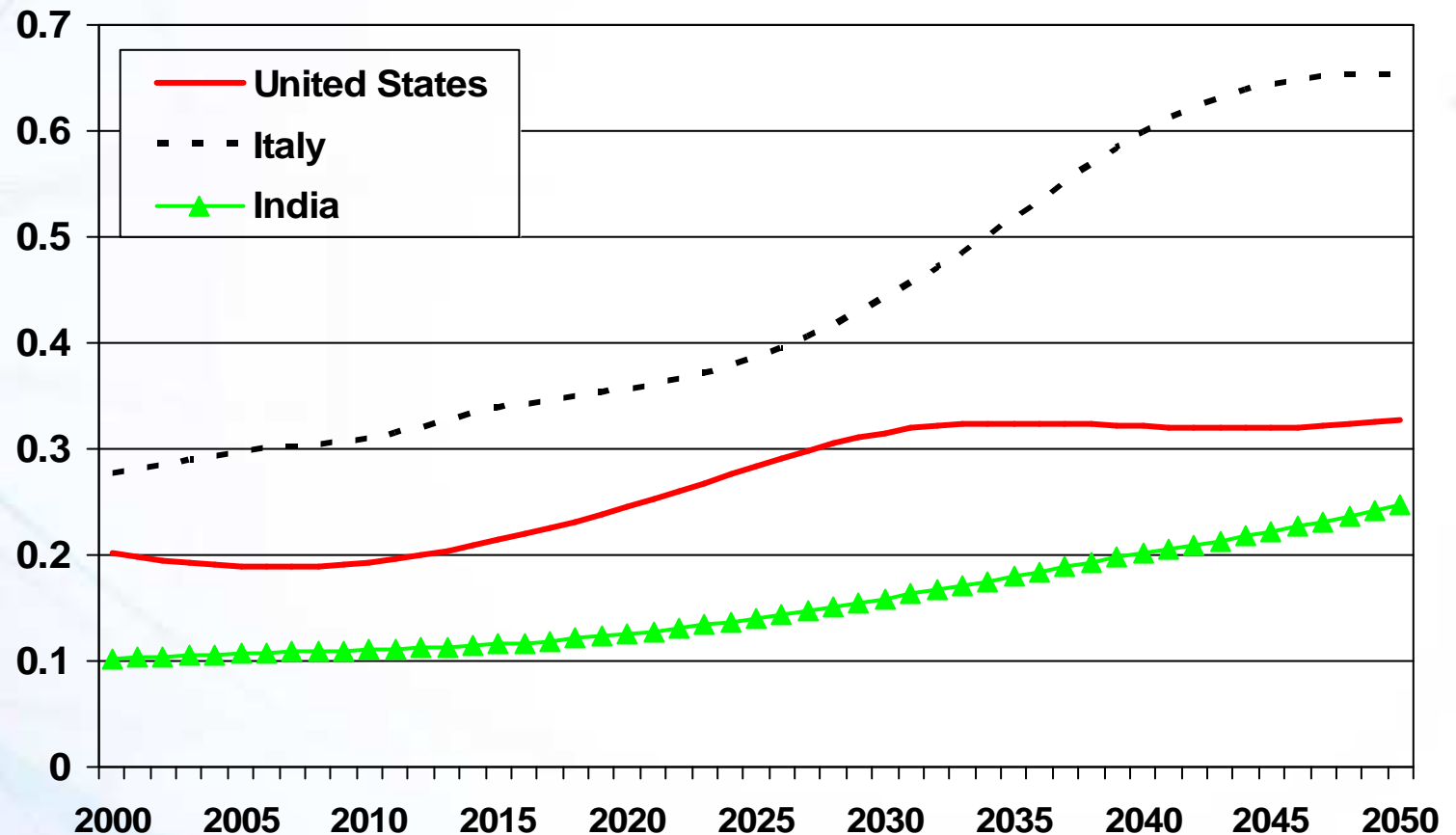
Simulated Aged Dependency Rates in India, Italy and the United States

Ratio of retirees to workers



Simulated Pay-Go Pension Cost Rates in India, Italy and the United States for a Stand Alone Pension System

Tax rate as a percentage of wages

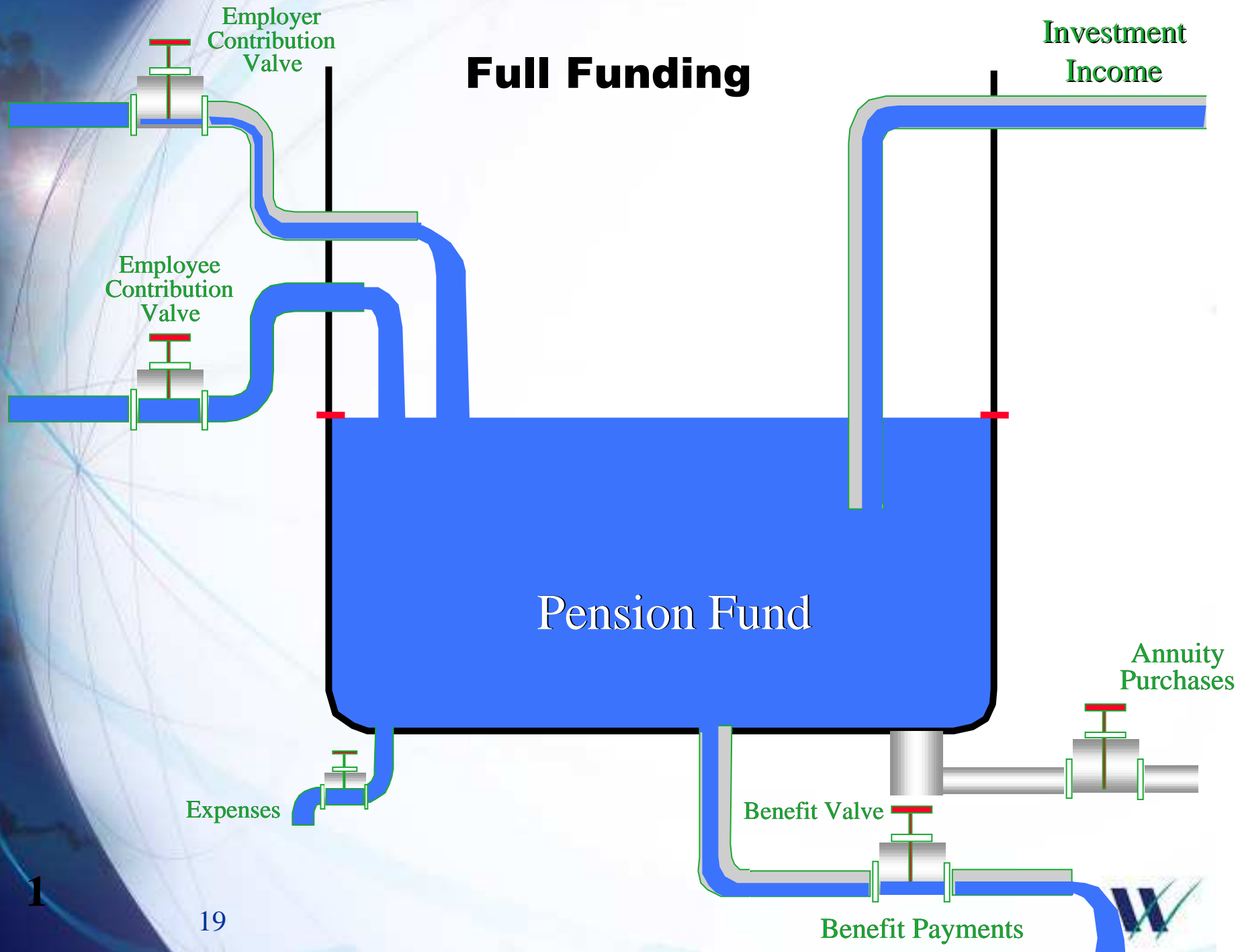




Immigration Considerations

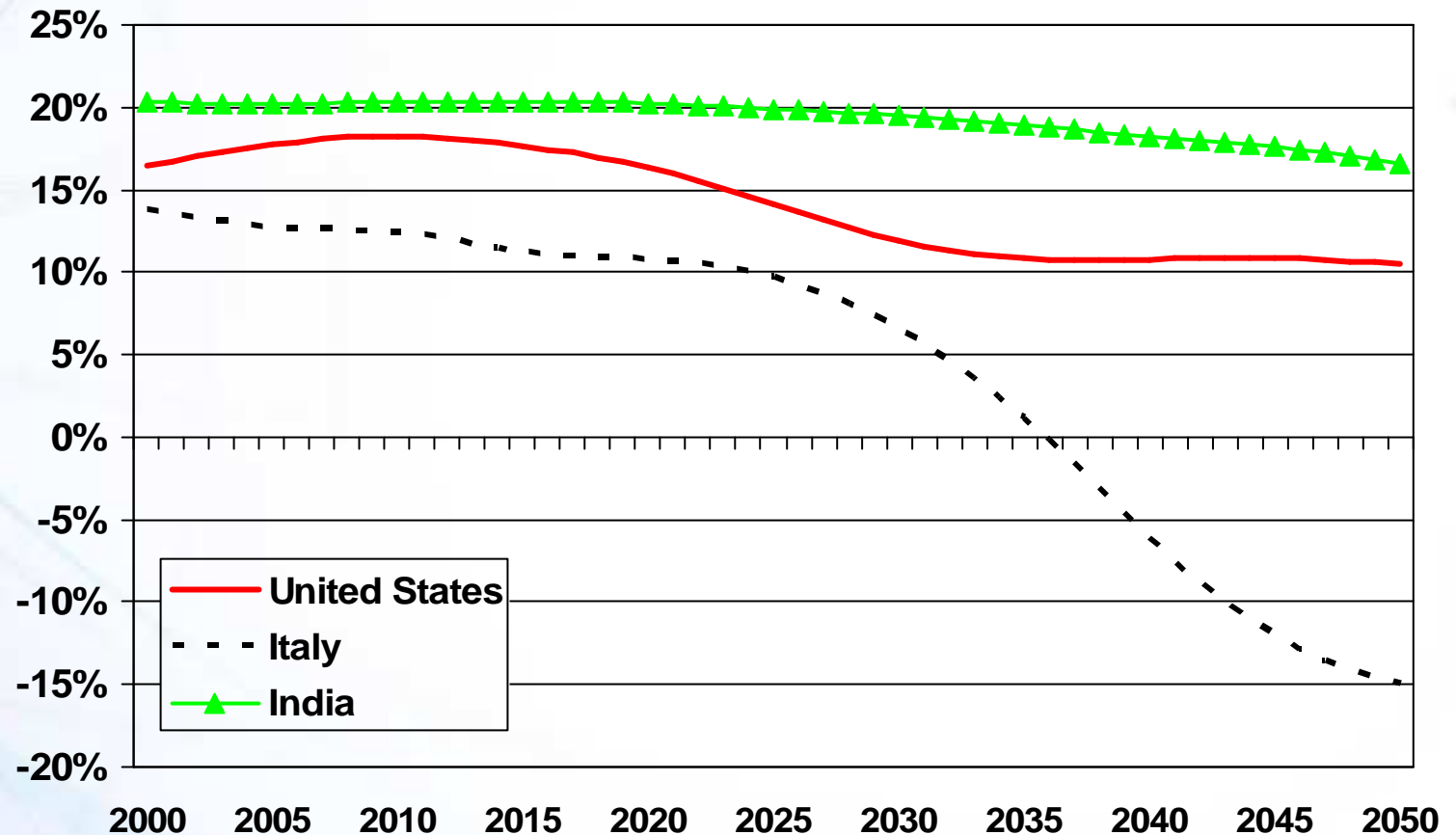
- Will developed economies continue to be attractive places for foreign workers to go if they face high payroll taxes?

Full Funding

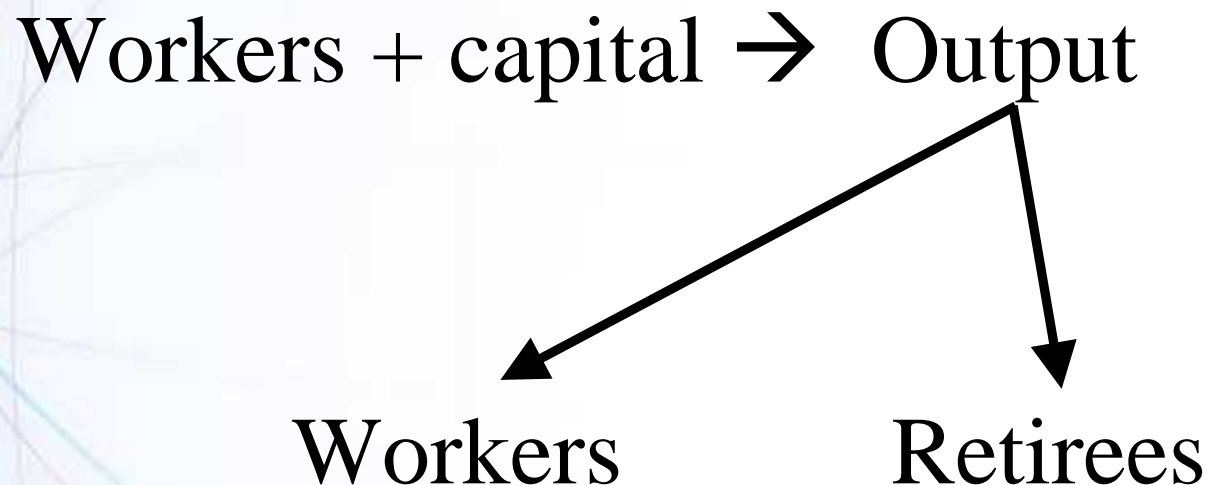


Simulated National Savings Rates Associated with a Funded Pension in India, Italy and the United States

Savings as a percentage of national income

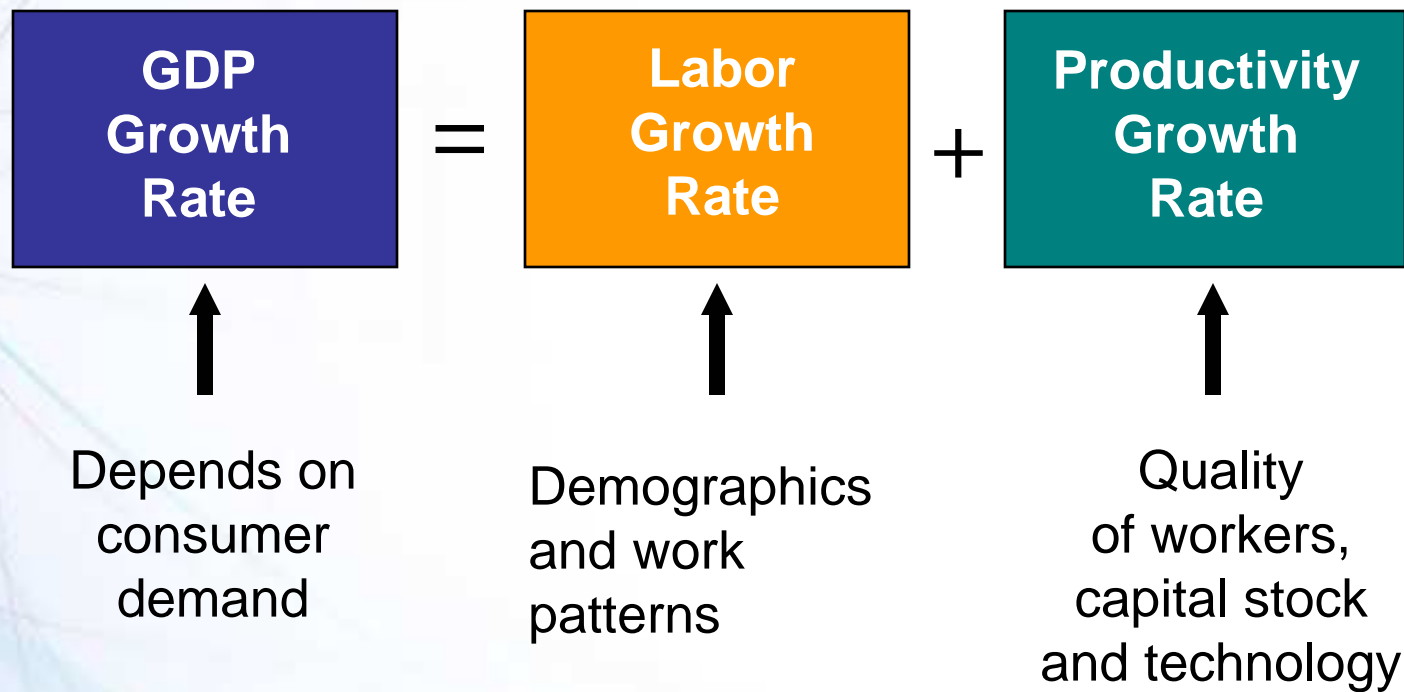


Role of a Retirement System in a National Economy



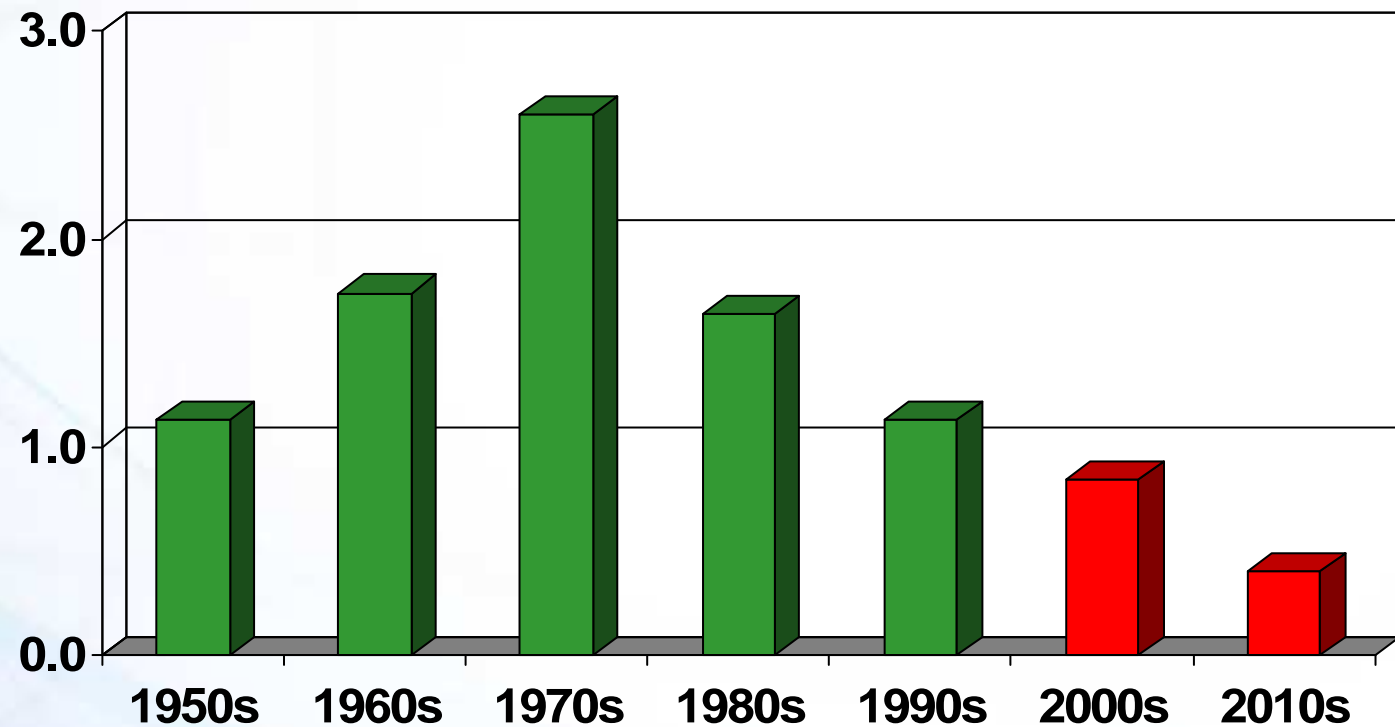
No matter what the structure of the retirement system it simply allocates output between workers and retirees.

Economic Issue 2: The Operation of a Macro Economy and Why Demographics Matter



US Civilian Labor Force Growth Rate for Selected Decades

Compound annual growth rate for the period



Growth Rates in the Labor Productivity of Selected Countries

	<u>1960s</u>	<u>1970s</u>	<u>1980s</u>	<u>1990s</u>	<u>Late 1990s</u>
Canada	2.26%	0.85%	0.97%	1.50%	1.59%
France	-	2.72	2.08	1.23	1.15
Germany	4.25	2.56	1.28	1.49	1.09
Italy	6.21	2.57	1.65	1.54	1.02
Japan	8.63	3.57	2.84	1.12	1.46
U.K.	2.94	1.75	1.95	1.93	1.52
U.S.	2.26	0.81	1.31	1.48	1.96

Source: Steven A. Nyce and Sylvester J. Schieber, *The Economic Implications of Aging Societies: The Costs of Living Happily Ever After* (Cambridge: Cambridge University Press, 2005).



Growth Rates in the Labor Forces of Selected Countries

	<u>1960s</u>	<u>1970s</u>	<u>1980s</u>	<u>1990s</u>
Canada	2.66%	3.60%	1.75%	1.17%
France	0.94	0.93	0.57	0.57
Germany	0.15	0.43	0.86	0.69
Italy	-0.52	0.84	0.52	0.10
Japan	1.34	0.92	1.23	0.58
U.K.	0.07	0.57	0.68	0.28
U.S.	1.74	2.60	1.64	1.13

Source: Steven A. Nyce and Sylvester J. Schieber, *The Economic Implications of Aging Societies: The Costs of Living Happily Ever After* (Cambridge: Cambridge University Press, 2005).



Growth Rates in the Labor Forces of Selected Countries

	<u>1960s</u>	<u>1970s</u>	<u>1980s</u>	<u>1990s</u>	<u>2000s</u>	<u>2010s</u>
Canada	2.66%	3.60%	1.75%	1.17%	0.73%	0.09%
France	0.94	0.93	0.57	0.57	0.10	-0.36
Germany	0.15	0.43	0.86	0.69	-0.12	-0.63
Italy	-0.52	0.84	0.52	0.10	-0.43	-0.98
Japan	1.34	0.92	1.23	0.58	-0.26	-0.50
U.K.	0.07	0.57	0.68	0.28	0.25	-0.21
U.S.	1.74	2.60	1.64	1.13	0.97	0.46

Source: Steven A. Nyce and Sylvester J. Schieber, *The Economic Implications of Aging Societies: The Costs of Living Happily Ever After* (Cambridge: Cambridge University Press, 2005).



Compound Annual Growth Rates in GDP Per Capita in Selected Countries

Total consumption depends on age composition and size of population but per capita consumption level as well.

	<u>1960s</u>	<u>1970s</u>	<u>1980s</u>	<u>1990s</u>
Canada	3.07%	3.04%	1.56%	1.64%
France	4.47	2.66	1.84	1.34
Germany	3.71	2.70	2.10	2.33
Italy	4.97	3.10	2.16	1.44
Japan	9.01	3.25	3.51	1.07
U.K.	2.29	1.81	2.47	1.88
U.S.	2.92	2.27	2.16	2.25

Source: Steven A. Nyce and Sylvester J. Schieber, *The Economic Implications of Aging Societies: The Costs of Living Happily Ever After* (Cambridge: Cambridge University Press, 2005).



The Operation of a Macro Economy and Why Demographics Matter

We know
what we
want here

GDP
Growth
Rate

Depends on
consumer
demand

We know
what we
have here

Labor
Growth
Rate

Demographics

Do we have
enough of this
to make it work?

Productivity
Growth
Rate

Quality
of workers,
capital stock
and technology

=

+

Given Output Expectations and Baseline Labor Supply Estimates, What Has to Happen to Productivity?

Annualized growth in labor productivity

	Market clearing %	1990s	1980s	1970s
Canada	2.27%	1.44%	1.06%	0.85%
France	1.94	1.27	2.07	2.72
Germany	2.27	1.50	1.70	2.56
Italy	2.60	1.57	1.60	2.55
United Kingdom	2.02	1.92	1.96	1.75
United States	2.04	1.48	1.31	0.81

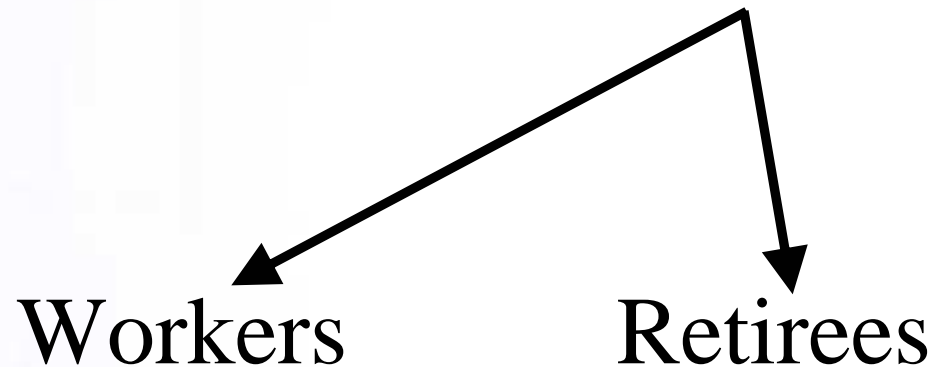
Sources: Authors' calculations; *OECD Economic Outlook*; *OECD Labour Force Statistics*; *UN Population Prospects— 2000 Revision*.



Role of a Retirement System in a National Economy

... and if output levels are unsatisfactory

Workers + capital \rightarrow Output

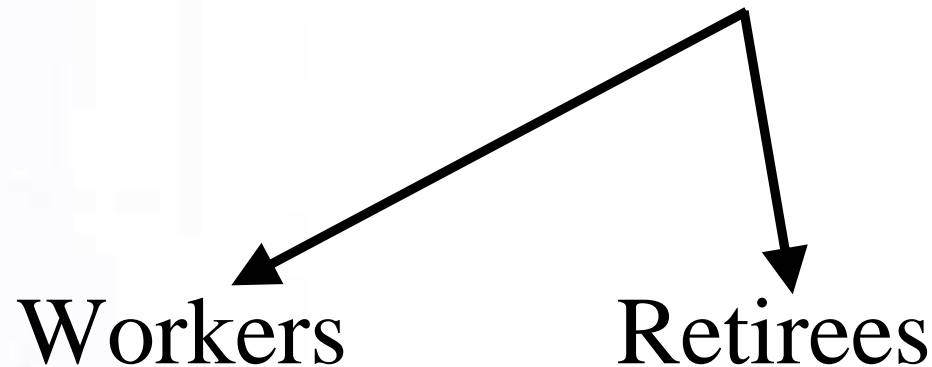


No matter what the structure of the retirement system it simply allocates output between workers and retirees.

Role of a Retirement System in a National Economy

... and if output levels are unsatisfactory

Workers + capital \rightarrow Output



The real economic question is:

How do we allocate the disappointment?

Characteristics of Retirement Systems

- Initial benefits tend to grow over time in proportion to wages which are linked to productivity
- Benefits in most countries are indexed after retirement
 - Cash pensions
 - Tied to wages in some
 - Tied to prices in others
 - Health insurance
 - Retirees use more health care than younger people
 - Health costs tend to grow more rapidly than wages
- Net result is often that retiree income grows at rate of worker productivity

If Income for Elderly Grows at Rate of Productivity Growth, Workers Get the Residual—A Look at the 2010s

Growth rates in per capita consumption

	Elderly	Active workers & dependents
Canada	1.50	0.87
France	1.23	0.63
Germany	1.49	0.95
Italy	1.54	1.00
Japan	1.12	0.76
UK	1.93	1.48
US	1.48	1.10

Source: Steven A. Nyce and Sylvester J. Schieber, *The Economic Implications of Aging Societies: The Costs of Living Happily Ever After* (Cambridge: Cambridge University Press, 2005).



If the Non-Elderly Receive the Benefits of Improving Worker Productivity, Retirees Receive the Residual—A Look at the 2010s

Growth rates in per capita consumption

	Workers & dependents	Elderly
Canada	1.54	-1.28
France	1.21	-0.82
Germany	1.57	-0.38
Italy	1.57	-0.05
Japan	1.35	-0.30
UK	1.92	0.31
US	1.63	-1.05

Source: Steven A. Nyce and Sylvester J. Schieber, *The Economic Implications of Aging Societies: The Costs of Living Happily Ever After* (Cambridge: Cambridge University Press, 2005).



Immigration Considerations

- Will developed economies continue to be attractive places for foreign workers to go if they face high payroll taxes?
- What are the implications of political systems that favor retirees over workers in allocating national output?

Economic Issue 3: Growth Rates in the Labor Forces of Selected Countries May Lead to Increased Competition for Immigrant Labor

	<u>2000s</u>	<u>2010s</u>
Canada	0.73 %	0.09%
France	0.10	-0.36
Germany	-0.12	-0.63
Italy	-0.43	-0.98
Japan	-0.26	-0.50
U.K.	0.25	-0.21
U.S.	0.97	0.46

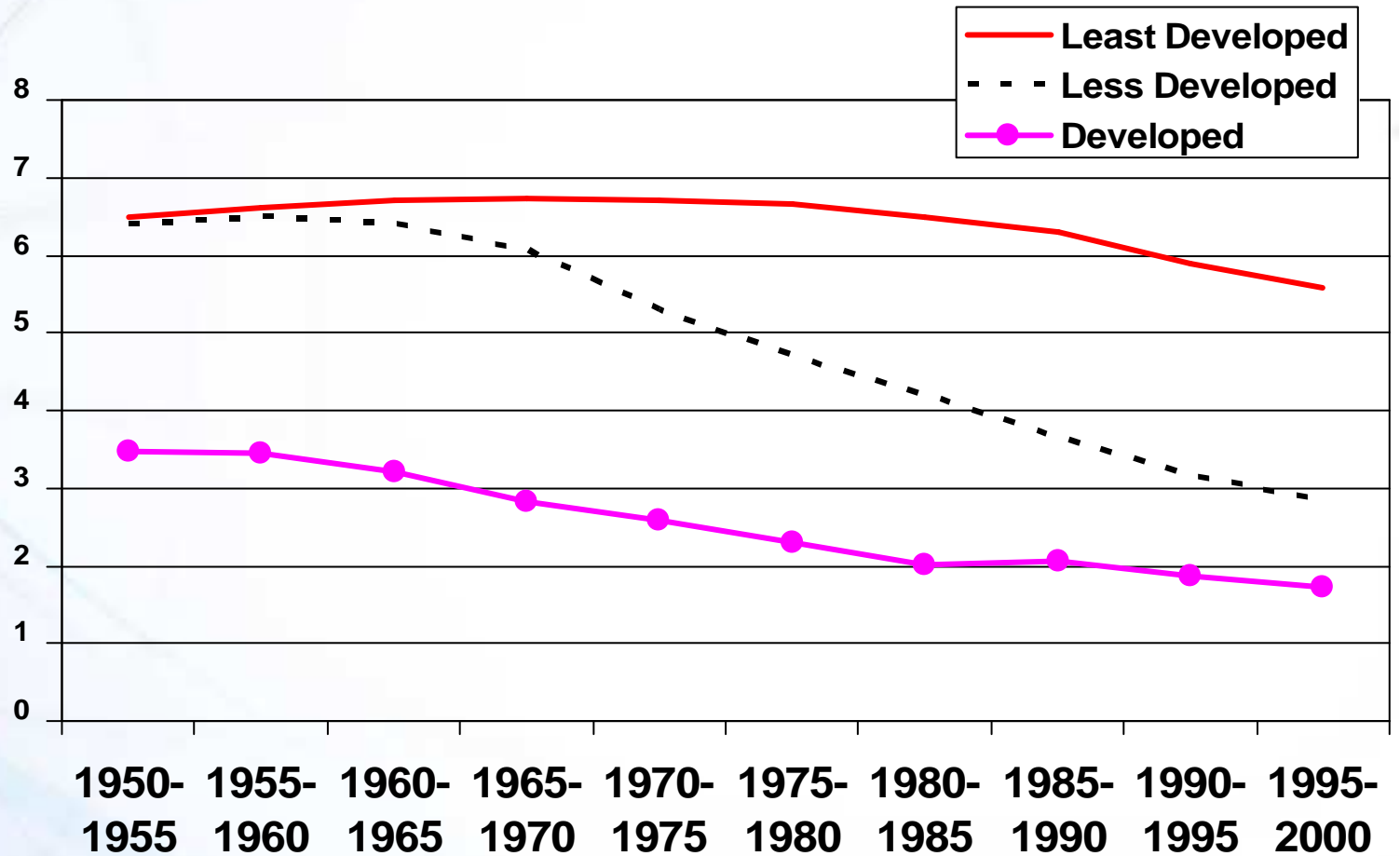
Source: Steven A. Nyce and Sylvester J. Schieber, *The Economic Implications of Aging Societies: The Costs of Living Happily Ever After* (Cambridge: Cambridge University Press, 2005).



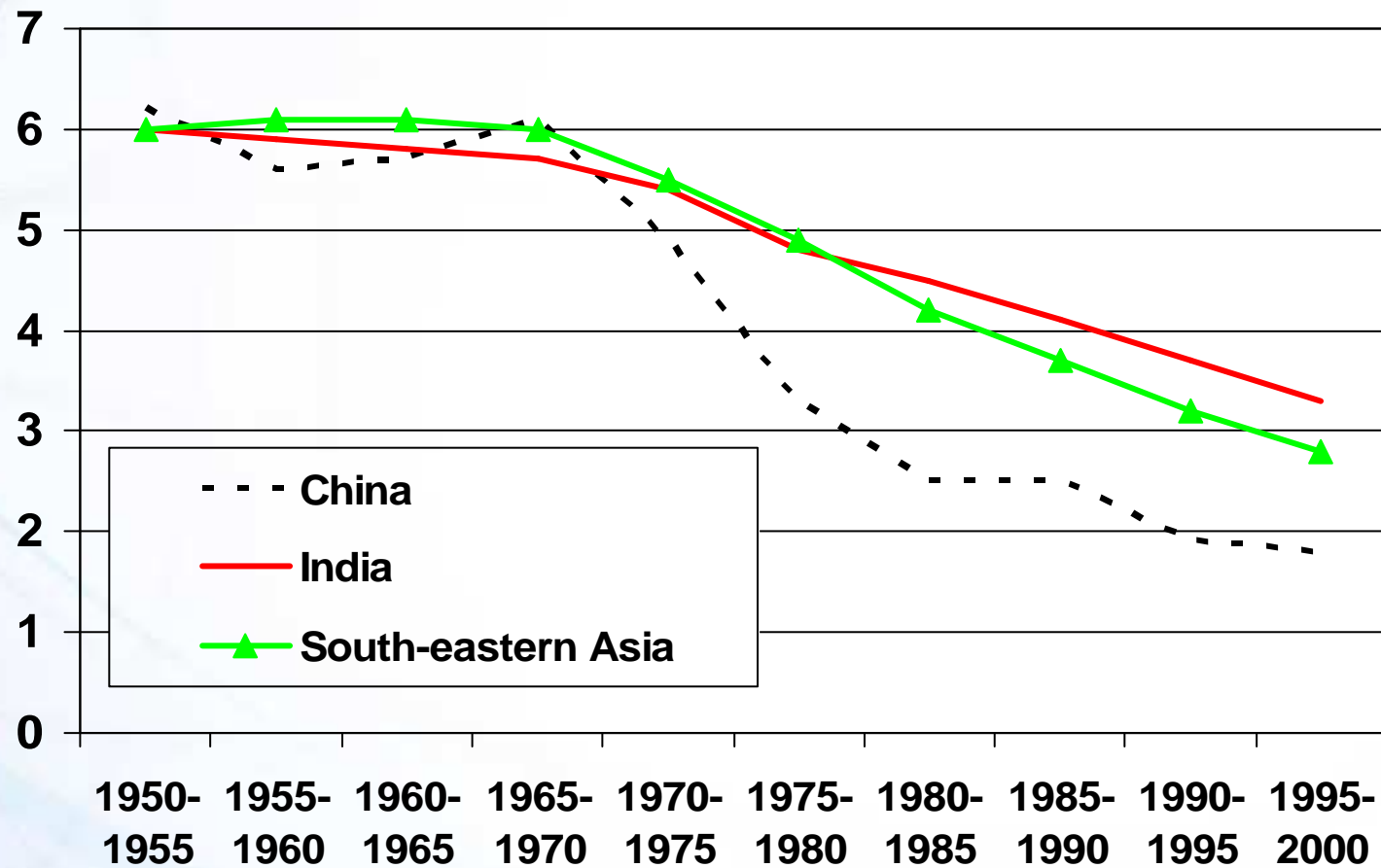
Immigration Considerations

- Will developed economies continue to be attractive places for foreign workers to go if they face high payroll taxes?
- What are the implications of political systems that favor retirees over workers in allocating national output?
- Will other developed economies bid away immigrants from us?

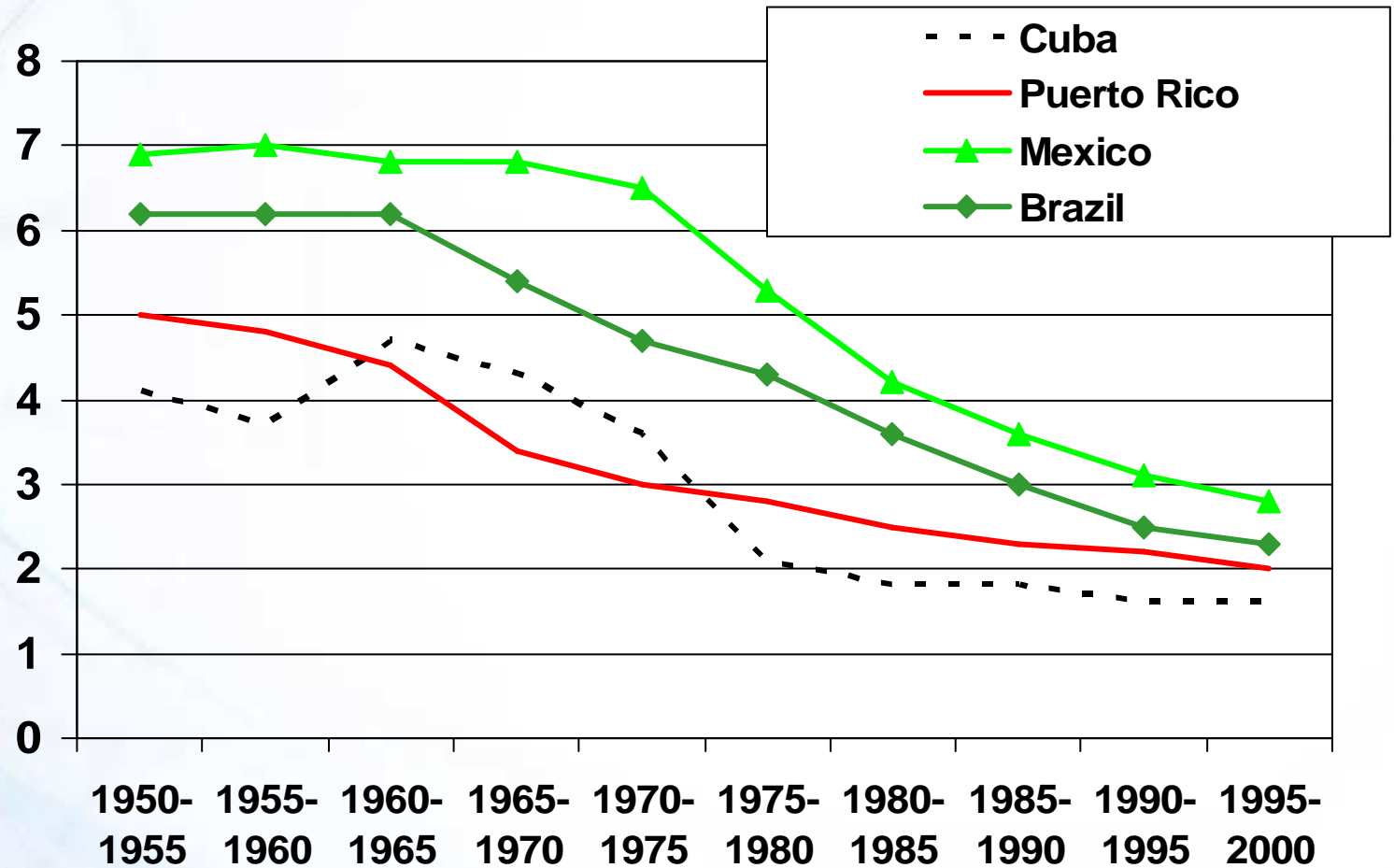
Economic Issue 4: Changing Fertility Rates of Feeder Nations



Changing Fertility Rates in Selected Feeder Countries



Changing Fertility Rates in Selected Feeder Countries



Immigration Considerations

- Will developed economies continue to be attractive places for foreign workers to go if they face high payroll taxes?
- What are the implications of political systems that favor retirees over workers in allocating national output?
- Will other developed economies bid away immigrants from us?
- What are the implications if traditional feeder supplies diminish?



Potential Surplus Labor

The Outlook for Europe

	<u>Working age populations in millions</u>				Change
	2000	2010	2020	2030	2000-2030
European Union	229	231	224	205	- 24
Eastern Europe	186	192	178	158	- 28
Northern Africa	86	113	138	158	72
Middle East	92	120	149	179	86
The -stans and Iran	133	178	226	276	143

Sources: *UN Population Prospects—2000 Revision*; author's calculations.



Potential Surplus Labor

The Outlook for the Asia-Pacific Region

	<u>Working age populations in millions</u>				
				Change	
	2000	2010	2020	2030	2000-2030
Japan	79	76	69	65	- 14
Australia/N.Z.	14	15	16	16	2
China	770	877	914	900	130
India	520	645	766	855	335
Southeast Asia	275	341	398	434	159

Sources: *UN Population Prospects—2000 Revision*; author's calculations.



Potential Surplus Labor

The Outlook for the Americas

	<u>Working age populations in millions</u>				
	2000	2010	2020	Change 2030	2000-2030
Canada	19	21	22	21	2
United States	167	187	197	198	31
Mexico	51	63	74	80	29
Central America less Mexico	16	22	29	35	18
South America	187	228	260	282	95

Sources: *UN Population Prospects—2000 Revision*; author's calculations.



Economic Issue 5: Alternatives to Immigration in Tapping Surplus Labor

Net private capital flows in billions of US dollars to emerging market economies, 1996-2000

	Foreign direct investment	Net private portfolio investment
Africa	\$ 36.1	\$ 20.4
Asia	275.8	41.9
Middle East	30.4	- 26.4

Source: Steven A. Nyce and Sylvester J. Schieber, *The Economic Implications of Aging Societies: The Costs of Living Happily Ever After* (Cambridge: Cambridge University Press, 2005).



Immigration Considerations

- Will developed economies continue to be attractive places for foreign workers to go if they face high payroll taxes?
- What are the implications of political systems that favor retirees over workers in allocating national output?
- Will other developed economies bid away immigrants from us?
- What are the implications if traditional feeder supplies diminish?
- Will the flow of capital alter the source of future immigrant flows?

Thinking about US Immigration in a Global Economic Context

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